

#3

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/522,883
Source: PUT/10
Date Processed by STIC: 2/8/05

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 02/08/2005

PATENT APPLICATION: US/10/522,883

TIME: 11:34:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02082005\J522883.raw

```

3 <110> APPLICANT: CYTHERIS
5 <120> TITLE OF INVENTION: IL-7 drug substance, composition, preparation and uses.
7 <130> FILE REFERENCE: B0131WO
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/522,883
C--> 9 <141> CURRENT FILING DATE: 2005-02-02
9 <160> NUMBER OF SEQ ID NOS: 23
11 <170> SOFTWARE: PatentIn version 3.1
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 459
15 <212> TYPE: DNA
16 <213> ORGANISM: Artificial sequence
18 <220> FEATURE:
19 <223> OTHER INFORMATION: r-hIL-7 cDNA
21 <220> FEATURE:
22 <221> NAME/KEY: CDS
23 <222> LOCATION: (1)..(459)
24 <223> OTHER INFORMATION:
W--> 27 <400> 1
28 atg gat tgt gat att gaa ggt aaa gat ggc aaa caa tac gag tcc gtt      48
29 Met Asp Cys Asp Ile Glu Gly Lys Asp Gly Lys Gln Tyr Glu Ser Val
30 1          5          10          15
32 ctg atg gtc agc atc gat caa tta ttg gac agc atg aaa gaa att ggt      96
33 Leu Met Val Ser Ile Asp Gln Leu Leu Asp Ser Met Lys Glu Ile Gly
34          20          25          30
36 agc aat tgc ctg aat aat gaa ttt aac ttt ttt aaa aga cat atc tgt      144
37 Ser Asn Cys Leu Asn Asn Glu Phe Asn Phe Phe Lys Arg His Ile Cys
38          35          40          45
40 gat gct aat aag gaa ggt atg ttt tta ttc cgt gct gct cgc aag ttg      192
41 Asp Ala Asn Lys Glu Gly Met Phe Leu Phe Arg Ala Ala Arg Lys Leu
42          50          55          60
44 agg caa ttt ctt aaa atg aat agc act ggt gat ttt gat ctc cac tta      240
45 Arg Gln Phe Leu Lys Met Asn Ser Thr Gly Asp Phe Asp Leu His Leu
46 65          70          75          80
48 tta aaa gtt tca gaa ggc aca aca ata ctg ttg aac tgc act ggc cag      288
49 Leu Lys Val Ser Glu Gly Thr Thr Ile Leu Leu Asn Cys Thr Gly Gln
50          85          90          95
52 gtt aaa gga aga aaa cca gct gcc ctg ggt gaa gcc caa cca aca aag      336
53 Val Lys Gly Arg Lys Pro Ala Ala Leu Gly Glu Ala Gln Pro Thr Lys
54          100          105          110
56 agt ttg gaa gaa aat aaa tct tta aag gaa cag aaa aaa ctg aat gac      384
57 Ser Leu Glu Glu Asn Lys Ser Leu Lys Glu Gln Lys Lys Leu Asn Asp
58          115          120          125
60 ttg tgt ttc cta aag aga cta tta caa gag ata aaa act tgt tgg aat      432

```

RAW SEQUENCE LISTING

DATE: 02/08/2005

PATENT APPLICATION: US/10/522,883

TIME: 11:34:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02082005\J522883.raw

```

61 Leu Cys Phe Leu Lys Arg Leu Leu Gln Glu Ile Lys Thr Cys Trp Asn
62      130      135      140
64 aaa att ttg atg ggc act aaa gaa cac
65 Lys Ile Leu Met Gly Thr Lys Glu His
66 145      150
69 <210> SEQ ID NO: 2
70 <211> LENGTH: 153
71 <212> TYPE: PRT
72 <213> ORGANISM: Artificial sequence
74 <220> FEATURE:
75 <223> OTHER INFORMATION: r-hIL-7 cDNA
77 <400> SEQUENCE: 2
79 Met Asp Cys Asp Ile Glu Gly Lys Asp Gly Lys Gln Tyr Glu Ser Val
80 1      5      10      15
83 Leu Met Val Ser Ile Asp Gln Leu Leu Asp Ser Met Lys Glu Ile Gly
84      20      25      30
87 Ser Asn Cys Leu Asn Asn Glu Phe Asn Phe Phe Lys Arg His Ile Cys
88      35      40      45
91 Asp Ala Asn Lys Glu Gly Met Phe Leu Phe Arg Ala Ala Arg Lys Leu
92      50      55      60
95 Arg Gln Phe Leu Lys Met Asn Ser Thr Gly Asp Phe Asp Leu His Leu
96 65      70      75      80
99 Leu Lys Val Ser Glu Gly Thr Thr Ile Leu Leu Asn Cys Thr Gly Gln
100      85      90      95
103 Val Lys Gly Arg Lys Pro Ala Ala Leu Gly Glu Ala Gln Pro Thr Lys
104      100      105      110
107 Ser Leu Glu Glu Asn Lys Ser Leu Lys Glu Gln Lys Lys Leu Asn Asp
108      115      120      125
111 Leu Cys Phe Leu Lys Arg Leu Leu Gln Glu Ile Lys Thr Cys Trp Asn
112      130      135      140
115 Lys Ile Leu Met Gly Thr Lys Glu His
116 145      150
119 <210> SEQ ID NO: 3
120 <211> LENGTH: 531
121 <212> TYPE: DNA
122 <213> ORGANISM: Artificial sequence
124 <220> FEATURE:
125 <223> OTHER INFORMATION: r-hIL-7 cDNA
127 <220> FEATURE:
128 <221> NAME/KEY: CDS
129 <222> LOCATION: (1)..(531)
130 <223> OTHER INFORMATION:
W--> 133 <400> 3
134 atg ttc cat gtt tct ttt agg tat atc ttt gga ctt cct ccc ctg atc
135 Met Phe His Val Ser Phe Arg Tyr Ile Phe Gly Leu Pro Pro Leu Ile
136 1      5      10      15
138 ctt gtt ctg ttg cca gta gca tca tct gat tgt gat att gaa ggt aaa
139 Leu Val Leu Leu Pro Val Ala Ser Ser Asp Cys Asp Ile Glu Gly Lys
140      20      25      30

```

RAW SEQUENCE LISTING

DATE: 02/08/2005

PATENT APPLICATION: US/10/522,883

TIME: 11:34:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02082005\J522883.raw

```

142 gat ggc aaa caa tac gag tcc gtt ctg atg gtc agc atc gat caa tta      144
143 Asp Gly Lys Gln Tyr Glu Ser Val Leu Met Val Ser Ile Asp Gln Leu
144      35      40      45
146 ttg gac agc atg aaa gaa att ggt agc aat tgc ctg aat aat gaa ttt      192
147 Leu Asp Ser Met Lys Glu Ile Gly Ser Asn Cys Leu Asn Asn Glu Phe
148      50      55      60
150 aac ttt ttt aaa aga cat atc tgt gat gct aat aag gaa ggt atg ttt      240
151 Asn Phe Phe Lys Arg His Ile Cys Asp Ala Asn Lys Glu Gly Met Phe
152 65      70      75      80
154 tta ttc cgt gct gct cgc aag ttg agg caa ttt ctt aaa atg aat agc      288
155 Leu Phe Arg Ala Ala Arg Lys Leu Arg Gln Phe Leu Lys Met Asn Ser
156      85      90      95
158 act ggt gat ttt gat ctc cac tta tta aaa gtt tca gaa ggc aca aca      336
159 Thr Gly Asp Phe Asp Leu His Leu Leu Lys Val Ser Glu Gly Thr Thr
160      100      105      110
162 ata ctg ttg aac tgc act ggc cag gtt aaa gga aga aaa cca gct gcc      384
163 Ile Leu Leu Asn Cys Thr Gly Gln Val Lys Gly Arg Lys Pro Ala Ala
164      115      120      125
166 ctg ggt gaa gcc caa cca aca aag agt ttg gaa gaa aat aaa tct tta      432
167 Leu Gly Glu Ala Gln Pro Thr Lys Ser Leu Glu Glu Asn Lys Ser Leu
168      130      135      140
170 aag gaa cag aaa aaa ctg aat gac ttg tgt ttc cta aag aga cta tta      480
171 Lys Glu Gln Lys Lys Leu Asn Asp Leu Cys Phe Leu Lys Arg Leu Leu
172 145      150      155      160
174 caa gag ata aaa act tgt tgg aat aaa att ttg atg ggc act aaa gaa      528
175 Gln Glu Ile Lys Thr Cys Trp Asn Lys Ile Leu Met Gly Thr Lys Glu
176      165      170      175
178 cac      531
179 His
183 <210> SEQ ID NO: 4
184 <211> LENGTH: 177
185 <212> TYPE: PRT
186 <213> ORGANISM: Artificial sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: r-hIL-7 cDNA
191 <400> SEQUENCE: 4
193 Met Phe His Val Ser Phe Arg Tyr Ile Phe Gly Leu Pro Pro Leu Ile
194 1      5      10      15
197 Leu Val Leu Leu Pro Val Ala Ser Ser Asp Cys Asp Ile Glu Gly Lys
198      20      25      30
201 Asp Gly Lys Gln Tyr Glu Ser Val Leu Met Val Ser Ile Asp Gln Leu
202      35      40      45
205 Leu Asp Ser Met Lys Glu Ile Gly Ser Asn Cys Leu Asn Asn Glu Phe
206      50      55      60
209 Asn Phe Phe Lys Arg His Ile Cys Asp Ala Asn Lys Glu Gly Met Phe
210 65      70      75      80
213 Leu Phe Arg Ala Ala Arg Lys Leu Arg Gln Phe Leu Lys Met Asn Ser
214      85      90      95
217 Thr Gly Asp Phe Asp Leu His Leu Leu Lys Val Ser Glu Gly Thr Thr

```

RAW SEQUENCE LISTING

DATE: 02/08/2005

PATENT APPLICATION: US/10/522,883

TIME: 11:34:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02082005\J522883.raw

```

218          100          105          110
221 Ile Leu Leu Asn Cys Thr Gly Gln Val Lys Gly Arg Lys Pro Ala Ala
222          115          120          125
225 Leu Gly Glu Ala Gln Pro Thr Lys Ser Leu Glu Glu Asn Lys Ser Leu
226          130          135          140
229 Lys Glu Gln Lys Lys Leu Asn Asp Leu Cys Phe Leu Lys Arg Leu Leu
230 145          150          155          160
233 Gln Glu Ile Lys Thr Cys Trp Asn Lys Ile Leu Met Gly Thr Lys Glu
234          165          170          175
237 His
241 <210> SEQ ID NO: 5
242 <211> LENGTH: 37
243 <212> TYPE: DNA
244 <213> ORGANISM: Artificial sequence
246 <220> FEATURE:
247 <223> OTHER INFORMATION: Primer
249 <400> SEQUENCE: 5
250 attccatatg gattgtgata ttgaaggtaa agatggc 37
253 <210> SEQ ID NO: 6
254 <211> LENGTH: 36
255 <212> TYPE: DNA
256 <213> ORGANISM: Artificial sequence
258 <220> FEATURE:
259 <223> OTHER INFORMATION: Primer
261 <400> SEQUENCE: 6
262 agccgatcc ttatcagtgt tctttagtgc ccatca 36
265 <210> SEQ ID NO: 7
266 <211> LENGTH: 64
267 <212> TYPE: DNA
268 <213> ORGANISM: Artificial sequence
270 <220> FEATURE:
271 <223> OTHER INFORMATION: Primer
273 <400> SEQUENCE: 7
274 tagggaattc catatggatt gtgatattga aggtaaagat ggcaaacaat acgagtcggt 60
276 tctg 64
279 <210> SEQ ID NO: 8
280 <211> LENGTH: 48
281 <212> TYPE: DNA
282 <213> ORGANISM: Artificial sequence
284 <220> FEATURE:
285 <223> OTHER INFORMATION: Primer
287 <400> SEQUENCE: 8
288 gcaagcttgc caccatgttc catgtttctt ttaggtatat ctttggac 48
291 <210> SEQ ID NO: 9
292 <211> LENGTH: 36
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: ptac1 primer

```

RAW SEQUENCE LISTING

DATE: 02/08/2005

PATENT APPLICATION: US/10/522,883

TIME: 11:34:19

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02082005\J522883.raw

```

299 <400> SEQUENCE: 9
300 atcgagatct aattctcatg ttgacagct tatcat 36
303 <210> SEQ ID NO: 10
304 <211> LENGTH: 38
305 <212> TYPE: DNA
306 <213> ORGANISM: Artificial sequence
308 <220> FEATURE:
309 <223> OTHER INFORMATION: ptac2 primer
311 <400> SEQUENCE: 10
312 atcgtctaga gctgtttcct gtgtgaaatt gttatccg 38
315 <210> SEQ ID NO: 11
316 <211> LENGTH: 20
317 <212> TYPE: DNA
318 <213> ORGANISM: Artificial sequence
320 <220> FEATURE:
321 <223> OTHER INFORMATION: tac promoter primer
323 <400> SEQUENCE: 11
324 ttcgtgtcgc tcaaggcgca 20
327 <210> SEQ ID NO: 12
328 <211> LENGTH: 531
329 <212> TYPE: DNA
330 <213> ORGANISM: Artificial sequence
332 <220> FEATURE:
333 <223> OTHER INFORMATION: PS-sIL-7 cDNA
335 <220> FEATURE:
336 <221> NAME/KEY: CDS
337 <222> LOCATION: (1)..(531)
338 <223> OTHER INFORMATION:
W--> 341 <400> 12
342 atg ttc cat gtt tct ttt agg tat atc ttt gga ctt cct ccc ctg atc 48
343 Met Phe His Val Ser Phe Arg Tyr Ile Phe Gly Leu Pro Pro Leu Ile
344 1 5 10 15
346 ctt gtt ctg ttg cca gta gca tca tct gat tgt gat att gaa ggt aaa 96
347 Leu Val Leu Leu Pro Val Ala Ser Ser Asp Cys Asp Ile Glu Gly Lys
348 20 25 30
350 gat ggc aaa caa tac gag tcc gtt ctg atg gtc agc atc gat caa tta 144
351 Asp Gly Lys Gln Tyr Glu Ser Val Leu Met Val Ser Ile Asp Gln Leu
352 35 40 45
354 ttg gac agc atg aaa gaa att ggt agc aat tgc ctg aat aat gaa ttt 192
355 Leu Asp Ser Met Lys Glu Ile Gly Ser Asn Cys Leu Asn Asn Glu Phe
356 50 55 60
358 aac ttt ttt aaa aga cat cta tgt gat gat aat aag gaa ggt atg ttt 240
359 Asn Phe Phe Lys Arg His Leu Cys Asp Asp Asn Lys Glu Gly Met Phe
360 65 70 75 80
362 tta ttc cgt gct gct cgc aag ttg agg caa ttt ctt aaa atg aat agc 288
363 Leu Phe Arg Ala Ala Arg Lys Leu Arg Gln Phe Leu Lys Met Asn Ser
364 85 90 95
366 act ggt gat ttt gat ctc cac tta tta aaa gtt tca gaa ggc aca aca 336
367 Thr Gly Asp Phe Asp Leu His Leu Leu Lys Val Ser Glu Gly Thr Thr

```

VERIFICATION SUMMARY

DATE: 02/08/2005

PATENT APPLICATION: US/10/522,883

TIME: 11:34:20

Input Set : A:\sequence listing.txt

Output Set: N:\CRF4\02082005\J522883.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:27 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:24
L:133 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:3,Line#:130
L:341 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:12,Line#:338
L:487 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:16,Line#:484
L:609 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:18,Line#:606
L:723 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:20,Line#:720
L:845 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:22,Line#:842